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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/440,213	11/15/1999	I-SHIN ANDY WANG	ST9-99-044	2670

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EXAMINER	
YUAN, ALMARI ROMERO	
ART UNIT	**PAPER NUMBER**
2176	8

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/440,213	WANG, I-SHIN ANDY	
	Examiner	Art Unit	
	Almari Yuan	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 7/15/03 .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-30 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. This action is responsive to communications: Amendment filed on 7/15/03.

2. Claims 1-30 are pending in the case. Claims 1, 11, and 21 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-9, 11-19, and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson et al. (USPN 6,083,276 – filed on 06/1998).**

Regarding independent claim 1, Davidson et al. (Davidson) discloses:

A method for generating an interface to elements in a document, wherein the document defines a relationship of the elements and at least one attribute for each element (on col. 7, lines 30-47 and line 61 – col. 8, line 2: teaches an association between attributes with the element), comprising generating a class implementing methods for at least one element from information provided on elements in the document (on col. 24, lines 50-63: teaches target component (class) provides description of its accessible methods (implementing methods)) and a mapping indicating at least one element in the document to map to a class (on col. 7, lines 61-67, col. 21, line 58 – col. 22, line 7, lines 30-36, and col. 23, line 4 – col. 24, line 10: teaches mapping element with a target

class), wherein the at least one indicated element in the document for which the class is generated can be accessed and affected by the methods implemented in the class (on col. 23, line 4 – col. 24, line 10 and line 50 - col. 25, line 7: teaches target component (class) can be accessed to provides methods such as "write methods").

Davidson on col. 6, lines 59-65 and col. 7, lines 61-67: teaches an object or component is of the target class, which is mapped to an element. The target component can be the component of the target class mapped to an element to provide accessible methods (on col. 24, lines 50-63).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have incorporated the target component as the component of the target class mapped to an element to provide accessible methods that will quickly create and configure component-based applications using text-based document such as XML.

Regarding dependent claim 2, Davidson discloses:

wherein the mapping includes a class name for each indicated element (on col. 7, lines 61-67: teaches mapping element to the corresponding class).

Regarding dependent claim 3, Davidson discloses:

wherein the mapping indicates a data type for at least one attribute of the indicated element (on col. 7, lines 30-47, line 61 – col. 8, line 2, and col. 12, lines 25-40: : teaches type of component based on TYPE attribute, which attributes may be contained within elements).

Regarding dependent claim 4, Davidson discloses:

wherein the relationship of the elements in the document are arranged in a hierarchical relationship, and wherein the methods in the at least one class generated for the element allow a

user to directly access and affect the element (on col. 7, lines 6-47: teaches elements of a parsed ADF or XML document are arranged in a hierarchical structure of a parse tree).

Regarding dependent claim 5, Davidson discloses:

further comprising accessing the at least one element in the document indicated in the mapping using a hierarchical application program interface (API), wherein one class is generated for each accessed element (on col. 6, lines 27-37: teaches using API to facilitate interoperability of components).

Regarding dependent claim 6, Davidson discloses:

wherein the mapping indicates an interface to generate for the class, wherein the interface defines methods to access the element for which the class is generated (on col. 6, lines 59-65 and col. 7, lines 61-67: teaches an object or component is of the target class, which is mapped to an element. The target component can be the component of the target class mapped to an element to provide accessible methods (on col. 24, lines 50-63).

Regarding dependent claim 7, Davidson discloses:

wherein the methods implemented in the class include at least one method that is a member of the set of methods comprising: adding an instance of the element, inserting an instance of the element at a location in the document with respect to other instances of the element in the document, and removing an instance of the element from the document (on col. 23, line 4 – col. 24, line 10: teaches element declaration instantiates an instance of the class).

Regarding dependent claim 8, Davidson discloses:

further comprising defining extended attributes of at least one element and instantiating the class for the at least one indicated element from the defined extended attributes (on col. 23, line 4 – col. 24, line 10: teaches instantiates an instance of the class).

Regarding dependent claim 9, Davidson discloses:

wherein the defined extended attributes define further methods for the class (on col. 24, lines 50-63: teaches string-based attribute keys can be mapped to methods on the target component (class)).

Regarding claims 11-19 and 21-29, the limitations of claims 11-19 and 21-29 are a system and an article of manufacture for processing the method of claims 1-9 and are rejected under the same rationale

5. **Claim 10, 20, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson as applied to claims 1-9, 11-19, and 21-29 above, and in view of Skinner et al. (USPN 6,085,198).**

Regarding dependent claims 10, 20, and 30, Davidson discloses the invention substantially as claimed as described *supra*. However, Davidson does not explicitly disclose "serializing defined extended attributes into memory, wherein the defined extended attributes are capable of being deserialized from the memory".

Skinner et al. (Skinner on co. 10, line 53 – col. 11, line 16: teaches serializing objects with attributes names and types and which can later be deserialized.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provide a way to serialize objects with attribute names and types and

also capable deserializing object, as taught by Skinner, incorporated into the object or component of Davidson in order to provide a useful mechanism for object persistence and transmission.

Response to Arguments

6. Applicant's arguments filed 7/15/03 have been fully considered but they are not persuasive.

Regarding Applicant's remarks on pages 7-9:

Davidson does teach "generating a class of methods for one element in the document", on col. 24, lines 50-63: teaches target component ("target" class – see col. 7, lines 61-67) provides description of its accessible methods (implementing methods), in other words, a target component or target class (col.7, lines 61-67) contains accessible methods and properties; wherein an element is mapped with a target class (see col. 22, lines 30-36).

Davidson does teach "generating methods that can access and affect the element in the document" and "processing the document and mapping to generate methods used to access and affect elements in the document", on col. 23, line 4 – col. 24, line 10 and line 50 - col. 25, line 7: teaches target component (class) can be accessed to provides methods such as "write methods"; when an element is mapped with a target class (see col. 22, lines 30-36) such "write methods" within the target component or target class can affect the element after mapping.

Regarding Applicant's remarks on page 10:

Davidson does teach "accessing an element in the document using a hierarchical application program interface, where there is one class for each element", on col. 6, lines 27-37:

teaches using API to facilitate interoperability of components and on col. 7, lines 30-47: teaches components (components are in the application framework) are represented by an object graph preserving the hierarchical structure of the parse tree. The elements are represented in a XML parse tree shown in figure 3B to be mapped to components represented by an object graph.

Davidson does teach "methods that insert, remove or add an instance of the element in the document", on col. 23, line 4 – col. 24, line 10: teaches target class which can be created and used by the given element processor for a specific element instance; wherein the target class associated with a given element tag may be overridden through the "ElementTagManagerIntf method"; a target class can have <write methods> (see col. 24, line 50 – col. 25, line 7) which can affect the mapped element (see col. 6, lines 59-65).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almari Yuan whose telephone number is (703) 305-5945. The examiner can normally be reached on Mondays - Fridays (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (703) 305-9792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

AY
September 29, 2003

HEATHER R. HERNDON
SUPERVISORY PATENT EXAMINER
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